

Chapter 17.55 HILLSIDE DEVELOPMENTS

17.55.010 Purpose.

The city finds that the health, safety and the general public welfare of the residents of the city will be promoted by establishing standards for the development and excavation of hillside and slope areas located in the city so as to minimize soil and slope instability and erosion and the negative effects associated with construction in geologic hazard zones. In addition the city finds that the preservation of the visual and aesthetic character of the city's hillsides is an important public goal. The provisions herein are intended to supplement and amplify the city subdivision and zoning ordinances and are designed to accomplish the following:

- A. Prohibit development of uses which would likely result in a hazardous situation due to slope instability, rock falls, or excessive erosion;
- B. Provide for safe vehicular circulation and access;
- C. Encourage the location, design and development of building sites in a manner that will minimize the scarring and erosion effects of cutting, filling and grading of hillsides;
- D. Encourage preservation of open space by encouraging clusters or other design techniques to preserve the natural terrain;
- E. Where hillside excavation does occur, require that buildings be located in the cut area to minimize the visual effects of scarring. (Ord. 97-12 (part), 1997: Ord. 96-18 §2(part), 1996)

17.55.020 Definitions.

For the purposes of this chapter, the following words and phrases shall have the following meanings:

"Cut" means land surface which is reshaped by man through the removal of soil, rock, or other materials.

"Development" means the carrying out of any building activity or clearing of land as an adjunct of construction.

"Development parcel" means any quantity of land capable of being described with such definiteness that its location and boundaries may be established, which is designated by its owner or developer as land to be used or developed as a unit or which has been used or developed as a unit.

"Excavation" means any disturbance to the ground including but not limited to clearing, grubbing, rock removal, cutting, tunneling, drilling, or any other activity which alters the natural ground.

"Fill" means the deposit of soil, rock, or other materials placed by man.

"Geotechnical engineer" means a person with a four-year degree in civil engineering or engineering geology from an accredited university who is licensed as an engineer and who, through training and experience, is able to assure that geological factors affecting engineering works are recognized, adequately interpreted, and presented for use in engineering practice and for the protection of the public.

"Ledge" means the first substantial abrupt change in slope along the top edge of a plateau or ridge line.

"Major development" means and includes any building activity or clearing of land adjunct to construction involving subdivision of land into three or more lots; the construction of multifamily housing such as condominiums or townhouses containing three or more residential units; any residential or commercial construction which involves excavation of a surface area larger than one acre; or any excavation creating a vertical cut into a slope greater than four feet in height.

"Minor development" means and includes any building activity or clearing of land adjunct to construction involving less than three lots; construction of multifamily housing such as condominiums or townhouses containing less than three residential units; residential or commercial construction which involves excavation of a surface area of one acre or less; or any excavation creating a vertical cut into a

slope four feet or less in height.

"Plateau" means a flat or predominantly flat area of land which is raised sharply above adjacent land on at least one side as illustrated in Exhibit D and designated on ridge line map attached to the ordinance codified in this chapter and on file in the city recorder's office.

"Ridge line" means the junction of a rising steep slope on one side and a descending slope that may either be gentle or steep on the other side.

"Setback" means an area, measured as a distance from a property line or geologic boundary, in which no structure or building is allowed to be constructed.

"Slope" means a vertical rise measured over a horizontal distance, expressed as a percentage, measured generally at right angles to contour lines. (Ord. 97-12 (part), 1997: Ord. 96-18 §2(part), 1996)

17.55.030 Areas subject to these provisions.

Property within the city limits with slopes greater than fifteen percent. (Ord. 97-12 (part), 1997: Ord. 96-18 §2(part), 1996)

17.55.040 Hillside development density standards.

A. Lot size, density and site disturbance for development in lands subject to this chapter shall comply with the density schedule in this section. To the extent this density schedule is contrary to existing zoning standards the provisions of this section shall take precedence.

B. Any portion of a development parcel having a slope greater than forty-five percent shall not be included in the calculation of the area of such parcel for the purposes of determining conformity with the minimum lot parcel size and density requirements in this section.

C. Where more than two-thirds of a single family lot has a slope of twenty-five percent or less, the entire lot shall be considered as having less than twenty-five percent slope for the purpose of determining lot size.

D. Density standards:

Percent Natural Slope	Dwelling Units/Acre
1--25%	No change in density
Percent Natural Slope	Dwelling Units/Acre
26--39%	One d.u./acre provided the units are clustered in 30% or less of land area within this slope category. 70% of the land area of this slope category shall remain undisturbed.
40--45%	One d.u. per 20 acres
46% +	Development not permitted

E. A density bonus shall be available for development that transfers dwelling units from lands with a slope of twenty-six percent to thirty-nine percent to areas with a slope of twenty-five percent or less, either within the same parcel or to an adjacent parcel under the same ownership.

1. Any person transferring dwelling units as specified in subsection E of this section shall be entitled to a transfer density bonus of 0.75 dwelling units.

F. No development shall be permitted upon lots with an average slope of forty-six percent or more.

G. Where commercial rather than residential development is contemplated, density shall be calculated on the basis of each three thousand square foot increment of building construction being equivalent to one dwelling unit. (Ord. 97-12 (part), 1997: Ord. 96-18 §2(part), 1996)

17.55.050 Determination of slope and slope areas.

A. Slope shall be determined on an individual basis as an average percent natural slope for purposes of density limitations.

B. The contour interval maps and calculations required by this section shall be prepared in a report by a professional civil engineer or licensed surveyor and shall be submitted with applications for permits or subdivision approvals for lands subject to this chapter. Each report shall bear the certification of the engineer or surveyor as to the accuracy of the report.

C. The location of the natural fifteen percent, twenty-five percent, forty percent and forty-five percent slopes for the purposes of this chapter shall be determined using the following procedure:

1. Preparation of Contour Maps. Current contour maps shall be prepared and certified by a licensed engineer or surveyor showing contours at intervals no greater than five feet (the "contour map") drawn at one inch equals two hundred feet scale maximum.

2. Verification Through Field Surveys. Field surveys may be required of the applicant by the city engineer or city planner to verify the accuracy of the contour lines shown on the contour map. The contour map shall identify profile lines which shall be used to verify the field survey. Profile lines shall be perpendicular to contour lines and in no case occur at intervals greater than one hundred fifty feet apart or seventy-five feet from a property line.

3. Determination of Slope Areas for Density Calculations. Using the contour maps, slopes shall be calculated in intervals no greater than forty to eighty feet along profile lines. Points identified as slopes of fifteen percent, twenty-five percent, forty percent and forty-five percent shall be located on the contour map and connected by a continuous line. That area bounded by said lines and intersecting property lines shall be used for determining dwelling unit density. (Ord. 97-12 (part), 1997: Ord. 96-18 §2(part), 1996)

17.55.060 Hillside development permit required.

A. All major development on slopes in excess of fifteen percent shall require a hillside development permit granted by the city council prior to any excavation or construction activity. The planning commission shall first review proposed development and make a recommendation to the city council.

B. All minor development on slopes greater than fifteen percent shall require a grading permit granted by the city council prior to any excavation or construction activity. The planning commission shall first review the proposed development and make a recommendation to the city council.

C. Permit approval under this section shall not be required for preliminary plats which have been approved by the city council prior to the adoption of the ordinance codified in this chapter.

D. Upon review of a permit application for either major or minor development the planning commission may, in addition to recommending approval or denial of the application, submit to the city council recommendations as to conditions to be attached to the permit to mitigate specific adverse impacts associated with the application.

E. The city council may approve the application as submitted; approve subject to conditions; or deny the permit in full where the development does not meet the standards of this chapter or other provisions of the Municipal Code. (Ord. 97-12 (part), 1997; Ord. 96-18 §2(part), 1996)

17.55.070 Application submittals.

A. Any applicant for a major development on slopes greater than twenty-five percent, shall be required to submit the following technical information and reports:

1. Contour maps as provided in this section; site development plan (subsection C1); grading plan (C2); drainage control plan and report (C3); geology and soils report (C4); landscape plan (C5); other reports as required by city staff (C6); and evidence of title (C7).

B. Any application for a minor development on slopes greater than twenty-five percent, shall be required to submit the following technical information and reports:

1. Contour maps as provided in this section; site development plan (C1); grading plan (C2); geology and soils report (C4); and other reports as required by city staff (C6); and evidence of title (C7).

C. Submittals under this chapter shall contain the following:

1. Site Development Plans. A scaled site development drawing or plans prepared by a licensed engineer, licensed architect, or licensed surveyor containing:

- a. The proposed location and description of all buildings or structures;
- b. The proposed location and description of all landscaping, irrigation structures, and related structures;
- c. The proposed location and description of all public and private roads or driveways, street lighting, drainage structures, water, sewer, and gas lines, electric and telephone lines and related utilities;
- d. All property lines, new lot lines, existing and proposed easements, and areas dedicated to open space;
- e. All other submittals otherwise required for development under the Municipal Code for lands not subject to this chapter.

2. Grading Plan. A grading and earth moving plan conforming with all requirements of Appendix Chapter 33 of the Uniform Building Code and showing existing and proposed contours and cross-sections. The grading plan shall show accurate slope conditions and contours for lands extending no less than one hundred feet outside of the application boundaries. The grading plan shall additionally show:

- a. Detailed excavation drawings showing the location and extent of all hillside cuts and fills and all excavations for structures, utilities, or roads, including a description of all methods to be employed for excavation and fill disposal;
- b. A time-table providing a schedule for all grading and construction work with starting and ending dates;
- c. Specific restoration and mitigation techniques to be employed by the developer for cut and fill areas.

3. Drainage Control Plan and Report. A drainage control plan and report prepared by a licensed civil engineer and containing a site specific evaluation of drainage issues for the site and drainage control problems generated by the proposed development, including:

- a. Detailed plans of all surface and subsurface drainage systems and facilities, retaining walls, cribbing or other drainage or erosion protection devices, to be constructed in connection with, or as part of the proposed project;
- b. A map showing the drainage area and estimated runoff calculations for the area served by any drainage systems or facilities.

4. Geology and Soils Report. A geology and soils report shall be prepared by a licensed engineer trained and experienced in the practice of geotechnical engineering, and shall contain at least the following information:

- a. Slope stability analysis: conclusions and recommendations concerning the effects of material removal, introduction of water, both on and offsite, including, where applicable, on mesa tops, seismic

activity, and erosion on slope stability;

b. Foundation investigation: conclusions and recommendations concerning the effects of soil conditions on foundation and structural stability, including bearing capacity, sheer strength, and shrink/swell potential of soils;

c. The location and yield of springs, seeps and wetlands which shall be shown on the site plan;

d. Structural features, including any geological hazards such as rock falls, ravines, overhangs, cliff faces or the like;

e. Conclusions and recommendations regarding the effect of geologic conditions on the proposed development, together with recommendations identifying the means proposed to minimize any hazard to life or property, or adverse impact on the natural environment.

5. Landscape and Vegetation Plan. A landscape plan shall address all existing and proposed landscaping for the development site. It shall address:

a. Vegetative or other screening in areas of high visual impact and the specific plantings to be installed by the developer, including plantings needed for restoration of cut and fill areas;

b. Irrigation for all plantings;

c. Buffering the development from adjoining parcels and any other site specific vegetation issues.

6. Other Information. Other reports, plans, and information as may be deemed necessary by the city staff or planning commission may be required with the application as a condition of the application process.

7. Evidence of Title. A current legal description for the property subject to the application including a copy of the current deed evidencing title in the applicant and a current title insurance commitment and/or abstract of title. (Ord. 97-12 (part), 1997; Ord. 96-18 §2(part), 1996)

17.55.080 Improvements security and restoration bond.

A. The city may require, as a condition for issuance of any hillside development permit or grading permit, that the applicant post adequate security to assure compliance with all permit conditions, including restoration, soil stabilization, landscaping, drainage improvements, or any other permit condition. Any security required by this section shall be an amount, as determined in the discretion of city staff, reasonably calculated to cover anticipated costs for improvements required under the permit and may take the form of the following:

1. A surety bond or letter of credit naming the city of Moab as beneficiary or payee;

2. A certified or cashier's check payable to the city of Moab and held in an escrow account;

3. An improvements agreement specifying all improvements and permit conditions shall be completed prior to issuance of any certificate of occupancy or building permit for individual lots.

B. In the event the applicant fails to complete development in accordance with the permit conditions within one year from the issuance of the permit the city, upon delivering written notice to the applicant, may proceed to redeem any funds payable to it under this section for the purposes of obtaining completion of the required improvements.

1. For good cause shown, the city council, after receiving the recommendation of the planning commission, may grant such additional time extension as may be necessary to allow compliance by the applicant with all restoration or improvement conditions of the permit.

C. Where a project is to be completed in phases according to a phasing plan, the applicant can secure a proportionate partial release of any improvements security upon certification by the zoning administrator that all permit conditions have been complied with as to that particular phase. (Ord. 97-12 (part), 1997; Ord. 96-18 §2(part), 1996)

17.55.090 Building setbacks, height, and construction materials.

A. Where a ridge line or ledge occurs, the minimum setback shall be one hundred feet measured normal (perpendicular) to the closest point of the ridge, unless a greater setback is recommended in the geotechnical report. The planning commission may recommend a lesser setback where the applicant can demonstrate that the one hundred foot setback makes the property unbuildable.

B. All buildings constructed upon lands subject to this chapter shall be one story only, or twenty feet maximum, in height. Height shall be measured as in Section 208 (Grade) of the Uniform Building Code.

C. Buildings constructed upon lands subject to this chapter shall be constructed with materials appropriate to mitigate significant visual impacts. Wherever possible, buildings should be constructed of materials that closely resemble and blend in with native vegetation and hillside features. (Ord. 97-12 (part), 1997; Ord. 96-18 §2(part), 1996)

17.55.100 Appeals to the board of adjustment.

The board of adjustment shall hear any appeal from staff action; request for variance; or appeal regarding the grant, denial, or conditions attached to any permit under this chapter. (Ord. 97-12 (part), 1997; Ord. 96-18 §2(part), 1996)

17.55.110 Verification of compliance.

Compliance with all permit conditions shall be verified by the zoning administrator. Restoration bonds or other security shall not be released, and certificates of occupancy or building permits shall be withheld for such a development until such time as the zoning administrator shall certify compliance. (Ord. 97-12 (part), 1997; Ord. 96-18 §2(part), 1996)

17.55.120 Penalty for violation.

In addition to those penalties prescribed in Chapter 17.75 of this title, the city staff shall have the right to order a halt to construction of any improvements where, in his/her discretion, there exists a condition which violates or threatens to violate any of the provisions of this chapter. Such suspension of construction activities shall continue until the city public works director or zoning administrator is satisfied that measures have been implemented for substantial compliance with this chapter. (Ord. 97-12 (part), 1997; Ord. 96-18 §2(part), 1996)

17.55.130 Permit review criteria.

A. Any permit application under this section shall be reviewed to determine compliance with the following criteria:

1. Compliance with setback, lot area, density, and height limitations contained in this chapter;
2. Compliance with comprehensive plan goals for the area including the development site, including all other Municipal Code provisions;
3. The compatibility of the proposed development with existing land uses in the immediate vicinity of the project site, including aesthetic concerns and visual impacts;
4. Adequacy of the vegetation and landscaping plans, including restoration, vegetative screening, regrading and irrigation;
5. Geotechnical suitability of the development and the potential for geologic hazards to persons or property, whether natural or man-made, including erosion, rockfall, stormwater runoff, or similar concerns;
6. The availability of adequate municipal services, including police and fire protection, schools,

culinary water, sanitary sewer service, or the like;

7. Suitability of the proposed drainage and reclamation plans, including the extent to which the design meets the following specific engineering standards:

- a. The height of any cut or fill shall not exceed ten feet when measured vertically from the finished grade to the intersection of the slope with the natural undisturbed ground. The combined height of cuts and fill shall not exceed twenty feet unless otherwise approved by the planning commission and the city council. Approval is subject to incorporating, retaining, terracing, and landscaping or other approved techniques for stabilizing cuts and fills. All excavation and fills shall conform to Appendix Chapter 33 of the Uniform Building Code.
- b. All drainage systems shall be separate and independent from the sanitary sewer system.
- c. Drainage and flood control shall be designed in conformance with the city flood control master plan where applicable.
- d. Property development shall not cause a natural drainage channel to be filled in, obstructed, or diverted. When modification to a natural drainage channel is proposed within the development, such changes will be addressed in the drainage study and shown on the improvement plans, and the developer may be required to dedicate right-of-way or record drainage easements for structures and/or improvements needed to carry storm runoff in the event approval is given for the proposed modifications.
- e. The point of location where the natural drainage channel enters and leaves the property may not be changed without the approval of the city engineer.
- f. All of the drainage basin upstream of the development shall be considered to be fully developed in conformance with the city's current land use master plan. Effects on the downstream property owners relative to increased flood potential and nuisance water shall also be considered in the design, including acquisition of easements or agreements where necessary, or construction or modification of improvements where needed.
- g. The applicant shall provide the necessary means to assure drainage within the property being developed by making use of existing facilities or natural washes and constructing master planned improvements.
- h. It shall be required that each new development handle its stormwater runoff in such a manner that no net increase in storm runoff above the natural state will occur on the downstream properties. Pre-project flows must not be exceeded by the post-project flows.
- i. Projects shall be designed to provide that stormwater from a one hundred year frequency storm shall be adequately conveyed either within the limits of the street right-of-way or in storm drain easement without creating flood hazards to dwellings.
- j. When an underground pipe system is required, it shall be designed to carry a ten year storm. Major hydraulic structures shall be designed to carry a twenty-five year storm. The minimum storm drain size shall be ten inches.
- k. Unless specifically permitted, retention basins on hillsides shall not be allowed.
- l. Detention shall be allowed where it is compatible with all required reports. Detention basins shall be used for the purpose of eliminating the effects of the peak runoff of storms and releasing water flow at the pre-project, or approved rate.
- m. Cross-gutter drains on streets shall be avoided whenever possible. They shall not be allowed on collector and higher order streets.
- n. Drainage design must be constructed in accordance with accepted engineering standards and must be consistent with data in other reports such as soils, landscaping, and the like.
- o. All buildings shall be constructed outside the limits of and eighteen inches above the two hundred year flood stage except on drainages subject to FEMA flood control regulations, in which case construction shall be no less than two feet from any such flood line.
- p. Necessary measures shall be taken to prevent erosion and scour at all points throughout the

development. Erosion shall be mitigated at all points of discharge and at the face of any cut or fill slope throughout the development.

q. During grading or construction on any property (including off-site construction) the developer shall control both water used for construction and storm runoff in such a manner as to not affect any adjoining properties, nor add silt or debris to any existing storm drain, wash, channel or roadway.

r. Applications shall be evaluated for compliance with applicable state and federal environmental statutes and regulations promulgated thereunder, including, but not limited to the Federal Water Pollution Control Act. (Ord. 97-12 (part), 1997: Ord. 96-18 §2(part), 1996)

17.55.140 Application fees.

An applicant for a hillside development permit shall submit an application fee as established by resolution with the completed application. No action shall be taken on any application for a hillside development permit without payment of the proper application fee. (Ord. 06-11 (part), 2006: Ord. 97-12 (part), 1997: Ord. 96-18 §2(part), 1996)

17.55.150 Severability.

If any section, subsection, sentence, clause, phrase, or portion of this chapter is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not effect the validity of the remaining portions of this chapter. (Ord. 97-12 (part), 1997: Ord. 96-18 §2(part), 1996)